

A story told by Richard P. Feynman, the Nobel prize winning physicist, in his book 'The Pleasure of Finding Things Out'

Feynman, who was working at Los Alamos at the time on making the nuclear bomb, had to go down to Oak Ridge where they were building a plant to separate the isotopes of uranium so that they could get sufficient quantities of the isotope needed to make the bomb. Safety was a key consideration in the design of the Oak Ridge plant and it was being designed with a fail-safe valve system so that if one valve got stuck there was no danger, at least two would need to get stuck before there was any danger of an explosion. At Oak Ridge Feynman attends a meeting around a large boardroom table with the blueprint for the plant on display:

'I'm completely dazed, worse, I don't know what the symbols on the blueprint mean! There is some kind of thing that at first I think it's a window. It's a square with a little cross in the middle, all over the damn place. Lines with this damn square in, lines with this damn square in. I think it's a window; no it can't be a window, 'cause it ain't always at the edge. I want to ask them what it is. You must have been in a situation like this - you didn't ask them right away, right away it would have been OK. But they've been talking a bit too long. If you ask them now they'll say, what are you wasting my time all this time for? I don't know what to do; I think to myself, often in my life I have been lucky. You are not going to believe this story, but I swear it's absolutely true; it's such sensational luck. I thought what am I going to do, what am I going to do????? I got an idea. Maybe it's a valve? So, in order to find out whether it's a valve or not I take my finger and I put it down in the middle of one of the blueprints on page number 3 and said, 'What happens if this valve gets stuck?' figuring they're going to say, 'That's not a valve, sir, that's a window.' So one looks at the other and says, 'Well if that valve gets stuck,' and they go up and down the blueprint and look at each other and say 'you're absolutely right, sir.'

They roll up their blueprints and leave, and Feynman's reputation as a genius is considerably enhanced. The clear moral of the story is - if you don't understand ask, and the earlier you ask the better, unless you're always a really lucky person!

Feynman, R.P. (2000) The Pleasure Of Finding Things Out. Penguin.